UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,368	06/22/2001	Nobuo Hamamoto	500.30310CX2	7005

20457 7590 11/10/2003

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER	
THANGAVELU, KANDASAMY	
ART UNIT	**PAPER NUMBER**
2123	17

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/886,368	HAMAMOTO ET AL.	
	Examiner	Art Unit	
	Kandasamy Thangavelu	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *55-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *55-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 June 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Introduction

1. This communication is in response to the Applicants' Amendment mailed on September 22, 2003. Claims 55-60 of the application are pending. This office action is made non-final.

Response to Amendments

2. Applicants' amendments, filed on September 22, 2003 have been considered. The applicants' cancellation of claims 46-54 is accepted. The rejections are based on the newly cited reference(s).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

4. The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 55 and 60 are rejected under 35 U.S.C. 103(a) as being over **Kramer et al.** (**KKR**) (U.S. Patent 4,667,0880) in view of **Welsh et al. (WE)** (U.S. Patent 4,955,070).

5.1 **KKR** teaches portable data processing and storage system. Specifically, as per Claim 55, **KKR** teaches a memory apparatus having a playback function removably connected with a digital signal source to store digital data received from the digital signal source (Col 1, Line 61 to Col 2, Line 24; Col 4, Lines 6-8; Col 6, Lines 24-28); and

to reproduce the digital data stored therein independently of the digital signal source (Col 1, Line 61 to Col 2, Line 24); comprising:

a memory circuit electrically connected for storing said digital data from the digital signal source (Col 1, Line 61 to Col 2, Line 24; Col 2, Lines 45-53; Col 6, Lines 24-30 & 44-49); and

a playback circuit for reproducing said digital data stored in said memory circuit (Col 1, Line 61 to Col 2, Line 24).

KKR does not expressly teach that the memory apparatus has an inner battery. **WE** teaches that the memory apparatus has an inner battery (Col 2, Lines 3-7; Fig.6, Item 162), as the battery allows portable use of the memory apparatus (Col 2, Lines 3-7). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** with inner battery of **WE**, as the battery would allow portable use of the memory apparatus.

KKR does not expressly teach a battery switch, wherein the battery switch enables to use power from the digital signal source having a higher operating voltage than that of the inner battery when the memory circuit stores the digital data in a condition of connecting to the digital signal source. **WE** teaches a battery switch, wherein the battery switch enables to use power from the digital signal source having a higher operating voltage than that of the inner battery when the memory circuit stores the digital data in a condition of connecting to the digital signal source (Fig. 1, Items 30 and 12; Fig. 6, switch between the battery charger and the power conditioning circuit; Col 6, Lines 20-23; Col 6, Lines 33-35), as the battery switch allows operation of the portable unit from the power from the battery charger circuit (Fig 6, Item 164) when the onboard power supply unit (Fig 1, Item 30) is connected to the base unit (Fig 1, Item 12) and operate the portable unit from the battery (Fig 6, Item 162) when the battery charger circuit (Fig 6, Item 164) is disconnected from the base unit (Fig 1, Item 12). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** with the apparatus of **WE** that included a battery switch, wherein the battery switch enables to use power from the digital signal source having a higher operating voltage than that of the inner battery when the memory circuit stores the digital data in a condition of connecting to the digital signal source, as the battery switch would allow operation of the portable unit from the power from the battery charger circuit when the onboard power supply unit is connected to the base unit and operate the portable unit from the battery when the battery charger circuit is disconnected from the base unit.

KKR does not expressly teach a battery switch to use power from the inner battery when the playback circuit reproduces the digital data in a condition of being removed from the digital

signal source. **WE** teaches a battery switch to use power from the inner battery when the playback circuit reproduces the digital data in a condition of being removed from the digital source (Fig. 6, Item 162), as the inner battery allows portable use of the memory apparatus (Col 2, Lines 3-7). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** with the apparatus of **WE** that included a battery switch to use power from the inner battery when the playback circuit reproduced the digital data in a condition of being removed from the digital signal source, as the battery would allow portable use of the memory apparatus.

5.2 As per Claim 60, **KKR** and **WE** teach the memory apparatus of claim 55. **KKR** also teaches that the memory apparatus is a personal audio player for playing vended audio programs, and wherein the digital source is an audio program vending machine (Col 1, Line 64 to Col 2, Line 24; Col 6, Lines 24-30 and Lines 44-49).

6. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kramer et al. (KKR)** (U.S. Patent 4,667,0880) in view of **Welsh et al. (WE)** (U.S. Patent 4,955,070), and further in view of **Jinguji (JI)** (U.S. Patent 4,847,840).

6.1 As per Claim 56, **KKR** and **WE** teach the memory apparatus of claim 55. **KKR** and **WE** do not expressly teach that the digital data includes audio data and an identification (ID) code specifying a reproducing condition of the audio data, and the playback circuit reproduces the audio data following the reproducing condition. **JI** teaches that the digital data includes audio

data and an identification (ID) code specifying a reproducing condition of the audio data, and the playback circuit reproduces the audio data following the reproducing condition (Col 12, Lines 63-67; Col 12, Lines 47-49), as the identification data indicate if the audio data is monaural or stereo data and the sampling frequency to be used (Col 12, Lines 63 to Col 13, Line 16). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** and **WE** with the memory apparatus of **JI** that included the digital data including audio data and an identification (ID) code specifying a reproducing condition of the audio data, and the playback circuit reproduced the audio data following the reproducing condition, as the identification data would indicate if the audio data was monaural or stereo data and the sampling frequency to be used.

7. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kramer et al. (KKR)** (U.S. Patent 4,667,0880) in view of **Welsh et al. (WE)** (U.S. Patent 4,955,070), and further in view of **Koguchi et al. (KOG)** (U.S. Patent 5,138,925).

7.1 As per Claim 57, **KKR** and **WE** teach the memory apparatus of claim 55. **KKR** and **WE** do not expressly teach that the ID code is inserted in the head of the digital data and is followed by the audio data, and the ID code and the audio data are integrally stored in the memory circuit. **KOG** teaches that the ID code is inserted in the head of the digital data and is followed by the audio data, and the ID code and the audio data are integrally stored in the memory circuit (Col 7, Lines 24-28; Col 7, Lines 41-47; Col 11, Lines 25-26; Col 12, Lines 28-29; Col 21, Lines 11-12), as the ID code indicates the type of message (Col 11, Lines 25-26). It would have been obvious

to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** and **WE** with the memory apparatus of **KOG** that included the digital data including audio data and an identification (ID) code specifying a reproducing condition of the audio data, and the playback circuit reproduced the audio data following the reproducing condition, as the ID code would indicate the type of message.

8. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kramer et al. (KKR)** (U.S. Patent 4,667,0880) in view of **Welsh et al. (WE)** (U.S. Patent 4,955,070), and further in view of **Etoh et al. (ET)** (U.S. Patent 5,297,097).

8.1 As per Claim 58, **KKR** and **WE** teach the memory apparatus of claim 55. **KKR** and **WE** do not expressly teach a data transfer circuit to operate at an increased data transfer speed at the higher operating voltage from the digital source, in comparison to a data transfer speed at an operating voltage of the inner battery. **ET** teaches a data transfer circuit to operate at an increased data transfer speed at the higher operating voltage from the digital source, in comparison to a data transfer speed at an operating voltage of the inner battery (Fig. 1C; Col 2, Lines 47-57; Col 5, Lines 7- 17; Col 8, Lines 6-29), as the performance of the system is greatly improved with higher voltage (Fig. 1C;Col 8, Lines 24-29). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** and **WE** with the memory apparatus of **ET** that included a data transfer circuit to operate at an increased data transfer speed at the higher operating voltage from the digital source,

in comparison to a data transfer speed at an operating voltage of the inner battery, as the performance of the system would be greatly improved with higher voltage.

9. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kramer et al. (KKR)** (U.S. Patent 4,667,0880) in view of **Welsh et al. (WE)** (U.S. Patent 4,955,070), and further in view of **Koenck (KO)** (U.S. Patent 4,737,702).

9.1 As per Claim 59, **KKR** and **WE** teach the memory apparatus of claim 55. **KKR** does not expressly teach that the inner battery is a rechargeable battery. **WE** teaches that the inner battery is a rechargeable battery (Col 2, Lines 3-7; Fig.6, Item 162), as the rechargeable battery allows portable use of the memory apparatus (Col 2, Lines 3-7); and as per **KO**, the rechargeable battery provides increased useful life and reliability (Col 1, Lines 52-53). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** with the memory apparatus of **WE** that included a rechargeable battery, as the rechargeable battery would allow portable use of the memory apparatus and as per **KO**, the rechargeable battery would provide increased useful life and reliability.

KKR does not expressly teach the memory apparatus comprises a recharge circuit to use the higher operating voltage from the digital signal source to rapidly recharge the rechargeable battery during data transfer from the digital signal source to the memory apparatus. **WE** teaches the memory apparatus comprises a recharge circuit to use the higher operating voltage from the digital signal source to rapidly recharge the rechargeable battery during data transfer from the digital signal source to the memory apparatus (Fig. 1, Items 30; Fig. 6, Item 164; Col 6, Lines

20-23), as the battery charger circuit (Fig 6, Item 164) allows the rechargeable battery to be recharged (Col 6, Lines 20-23) when the onboard power supply unit (Fig 1, Item 30) is connected to the base unit (Fig 1, Item 12). It would have been obvious to one of ordinary skill in the art at the time of Applicants' invention to modify the memory apparatus of **KKR** with the apparatus of **WE** that included the memory apparatus comprises a recharge circuit to use the higher operating voltage from the digital signal source to rapidly recharge the rechargeable battery during data transfer from the digital signal source to the memory apparatus, as the battery charger circuit would allow the rechargeable battery to be recharged when the onboard power supply unit is connected to the base unit .

Arguments

10.1 As per the applicants' argument that "the present invention is featured by receiving digital signal and power from the digital signal source; the external power supply in Samph et al. is a storage rack; however, Samph et al. has no disclosure about data exchange between the storage rack and the external power supply", the examiner has included a new reference (**WE**). **WE** teaches receiving digital signal and power from the digital signal source; the external power supply in **WE** has disclosure about data exchange between the portable unit and the external power supply (Fig 1, Items 12, 26 and 30; Col 2, Lines 3-11).

10.2 As per the applicants' argument that "the switch in Samph et al. is not to change over the power supply source", the examiner has included a new reference (**WE**). **WE** teaches the switch

to change over the power supply source (Fig 6, switch between the battery charger and power conditioning circuit).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 703-305-0043. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska, can be reached on (703) 305-9704. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7329.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

K. Thangavelu
Art Unit 2123
October 31, 2003

W-Thomas
AU. 2123
Primary Examiner